

2013 DOE SOLID-STATE LIGHTING MARKET INTRODUCTION WORKSHOP

November 12, 2013 • The Benson Hotel • Portland, OR

Free Pre-Workshop LED Education

Tuesday, November 12

11:00 a.m. *Registration Opens*

1:00 p.m. **Solid-State Lighting: The New Basics**

The lighting world has changed dramatically in the last few years, and keeping pace often feels like drinking water from a fire hose. This talk will offer a rapid rundown of the current status of SSL technology and products.

Jack Curran, President, LED Transformations

1:30 p.m. **Controls Integration: The Matching Game**

Controls and LEDs are supposedly made for each other, but how exactly does that work? This session offers a real-time demonstration of various combinations of LED sources and devices for controlling them, and compares their performance.

Michael Poplawski, Senior Lighting Engineer, Pacific Northwest National Laboratory

2:00 p.m. **Engineering Criteria vs. Real-World Experience**

Implementing LED lighting systems can sometimes be challenging when using published IES criteria and manufacturers' information for the systems—and we all know that facility managers sometimes use a more practical approach that typifies how things work in the real world. This session will explore how LED systems place new challenges on the old way of doing things, and how some facility managers have had to adapt in a world where technology adoption is moving faster than the evolving criteria.

William Evans, Electrical Engineer, Princeton University

Bob Davis, Senior Staff Lighting Engineer, Pacific Northwest National Laboratory

2:45 p.m. *Refreshment Break*

3:15 p.m. **Color Spaces and Planckian Loci: Understanding All Those Crazy Color Metrics**

Complicated color metrics provide a scientific basis for lighting color quality, but they only get you in the ballpark for selecting and matching lamp colors. Equations can't describe the human perceptual experience. This talk will contrast how a designer and a scientist "see" color, and what that means for LED lighting users.

Naomi Miller, Designer and Senior Scientist, Pacific Northwest National Laboratory

Michael Royer, Lighting Engineer, Pacific Northwest National Laboratory

4:00 p.m.

Stump the Chumps

Your chance to ask DOE and industry experts the tough questions about LED lighting, such as:

1. Are LED products over-specified? Do they really need to last 25,000 hours?
2. People say, "Ask for a warranty," but what exactly am I looking for in that warranty?
3. Are there any power quality issues associated with LED lighting that I should be concerned about?
4. Where are OLEDs today, and how will they fit into the mix?

Moderator: *Ruth Taylor, Project Manager, Pacific Northwest National Laboratory*

Jeff McCullough, Senior Research Engineer, Pacific Northwest National Laboratory

Steve Paolini, Chief Technology Officer, NEXT Lighting

Eric Richman, Senior Research Engineer, Pacific Northwest National Laboratory

Fred Welsh, President, Radcliffe Advisors

5:00 p.m.

Wrap-Up and Adjourn

7:00 p.m.

Optional Bus Tour

A guided bus tour to a nearby Pacific Northwest National Laboratory test lab will provide attendees with hands-on access to the latest CALiPER testing set-ups: LED PAR38 lamps and LED T8 replacements. Registration required; \$20 transportation fee.